

# Weekly Reader

SENIOR EDITION 1 OF 2 SECTIONS

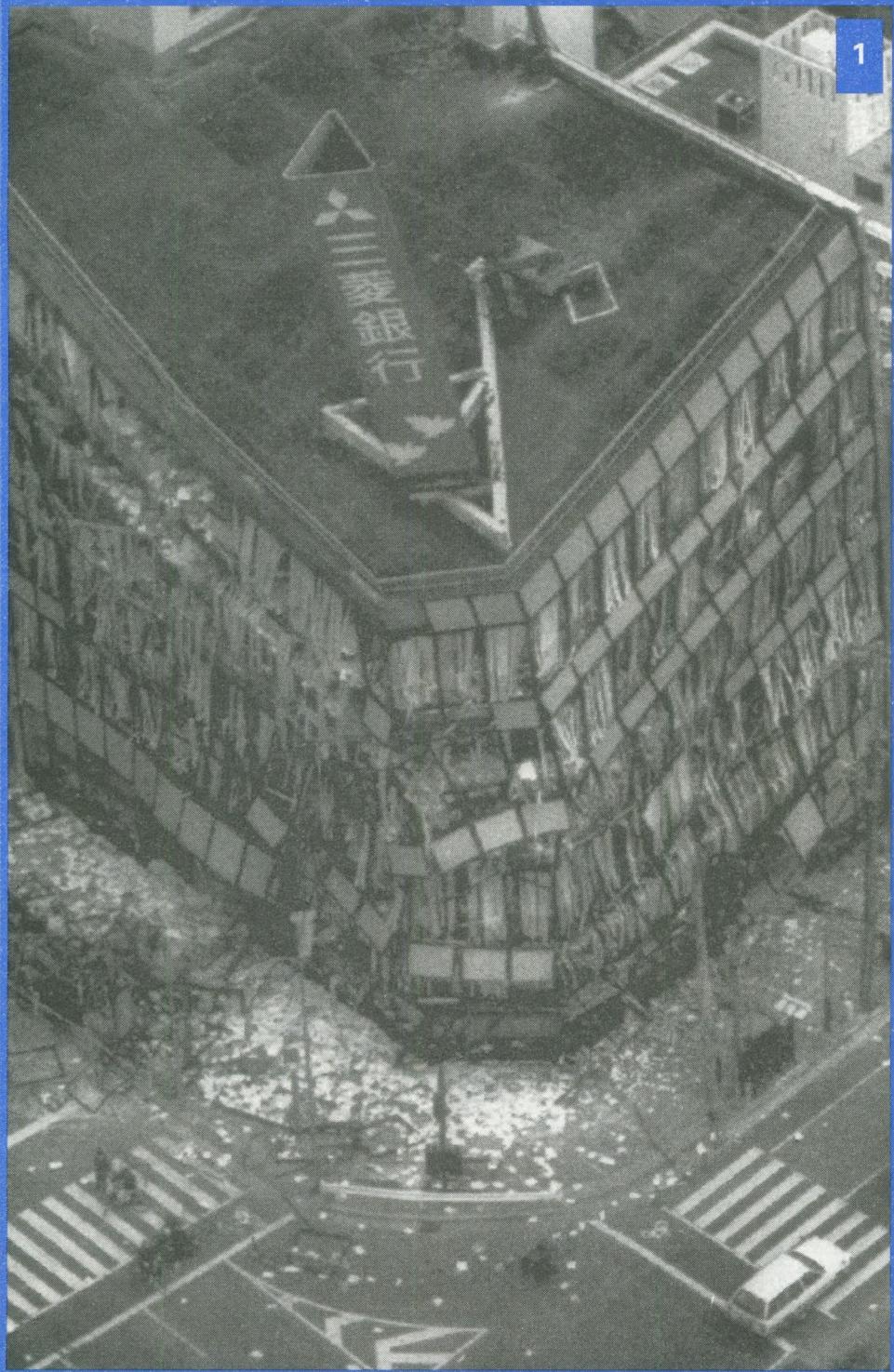
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A truck lies wrecked after a highway collapsed near Kobe, Japan, during a massive earthquake recently. The quake was one of the most destructive to hit Japan this century.

## Deadly Quake Hammers Japan!

See page 2.

# Deadly Quake Hammers Japan!



1

All photos by AP/Wide World Photos

KOBE, Japan—A massive earthquake struck this crowded port city recently, leaving widespread destruction, as many as 5,000 people dead, and thousands of people injured.

"I was terrified," says one Kobe (KOH-beh) resident. "All I could do was sit in terror."

The quake was the strongest of a string of quakes to strike Japan recently and the strongest to strike a major Japanese city in 70 years. Seismologists had expected such a quake but weren't sure where or when.

In the weeks leading up to the Kobe quake, other parts of Japan had been hit by three less damaging quakes. Seismologists say large quakes are often preceded by smaller quakes.

Seismologists in Japan and other countries expected a major quake to occur somewhere near Tokyo. But instead, the quake hit Kobe, about 225 miles away.

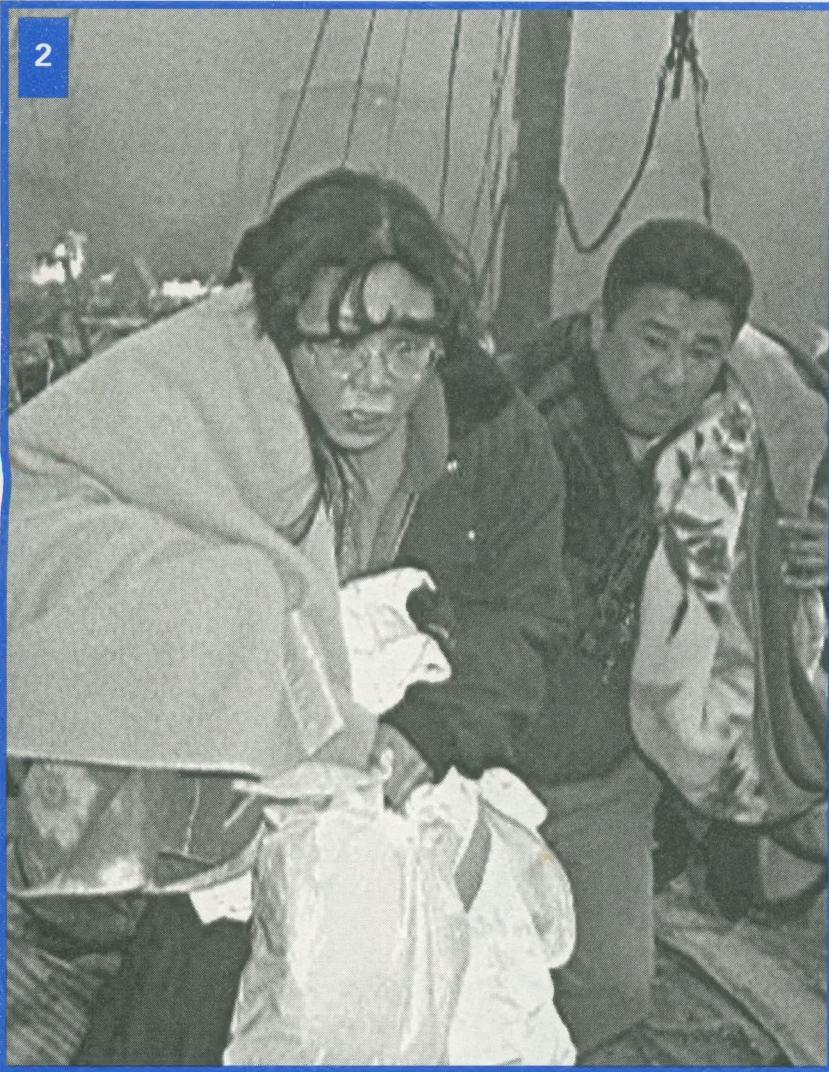
Experts say that if a quake had to hit, they're glad it hit during the early-morning hours, before most people were at work in high-rise office buildings. High-rises are easily damaged in quakes.

Residents of Kobe are now working day and night to repair their city and rebuild their shattered lives.

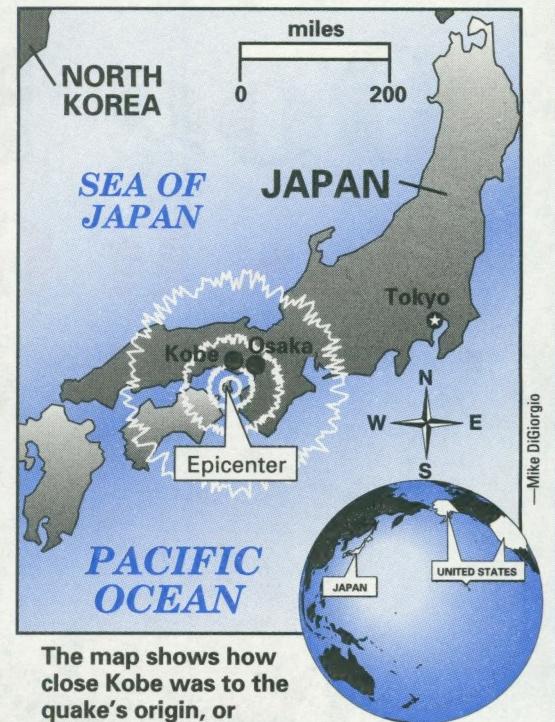


What kind of relief supplies might quake survivors need in the first days after a quake? the first weeks?

2



3



The map shows how close Kobe was to the quake's origin, or **epicenter**. Areas closest to the epicenter usually suffer far more damage than do areas farther away.

**1** The corner of this six-story building in Kobe collapsed during the quake. Only quakes with a magnitude of 6 or more on the **Richter scale** cause such severe damage. The Richter scale is a measurement of the amount of energy released at an earthquake's center. Seismologists measured this quake at 7.2, ten times more powerful than an earthquake measuring 6.2 and 100 times more powerful than one measuring 5.2.

**2** A couple flees with their remaining belongings through an area of homes that caught fire after the quake. Seismologists say Japan suffers frequent quakes because it sits on an area where three **tectonic plates** meet. Tectonic plates are huge shifting slabs of Earth's crust. Certain kinds of earthquakes result when the plates slide forcefully against one another.

**3** The quake destroyed these and thousands of other houses in Kobe, a city with about as many people as Philadelphia, Pennsylvania. Since the Kobe quake hit, more than 600 smaller quakes, called **aftershocks**, have struck the area.

# Dog Breeding

## Has It Gone Too Far?



A veterinarian examines a shar-pei in his office in California. Selective breeding for characteristics such as solid color and a high-set tail has caused some shar-peis to develop severe skin infections.

Four years ago, Amanda and Bob Metzger of Exton, Pennsylvania, bought a *purebred* golden retriever puppy. *Purebreds* are dogs that have ancestors of the same breed.

The Metzgers named the puppy Jake and brought it home with visions of a healthy, playful puppy scampering about their yard. Jake never became the playful pup the Metzgers envisioned, however.

The puppy quickly developed disabling bone and joint conditions, severe allergies, and an uncomfortable skin disorder. Jake has had two operations and needs to be given medicine every day. "He's a medical mess," says Amanda Metzger. "It just breaks my heart."

Animal experts say Jake is not alone in facing such health problems. A growing number of purebred dogs are being born with debilitating—and sometimes deadly—diseases.

### Bred for Beauty

Purebred dogs are admired for certain physical characteristics. Golden retrievers like Jake, for instance, are prized for their dense coats and pleasant temperaments. Collies are admired for their long noses and closely set eyes.

Puppies, like all animals, inherit physical traits from their parents. To increase the odds that pups will possess prized traits, some breeders mate two dogs from a family with members that have displayed those traits for several

generations. Some experts say that's where the trouble begins.

Dr. Donald Patterson, a canine health expert at the University of Pennsylvania, says *inbreeding*, or breeding closely related animals, is not healthy. Though the offspring of such unions are likely to inherit desired traits, he says, they are also more likely to inherit debilitating conditions.

### Same Family, Weak Traits

Patterson says offspring from closely related animals often inherit traits for weak hearts, bad eyesight, and other unhealthy conditions. Normally, when two unrelated dogs mate, the pups inherit strong traits from at least one parent and are healthy. For example, if a pup

inherits a trait for a strong heart from one parent and a trait for a weak heart from the other, the strong trait will be dominant and the pup will have a strong heart.

But when two dogs from the same family mate, say veterinarians, the odds that the pups will inherit two weak traits

increase dramatically. Inheriting two traits for weak joints, for instance, can cause paralysis. Two traits for poor eyesight can cause blindness. Two traits for a weak heart can cause death.

Experts say that because of poor breeding practices, an estimated one in four purebred dogs in the United States inherits a serious health problem that can jeopardize its life.

### Cracking Down on Breeders

Veterinarians and concerned breeders want to halt the spread of medical problems that plague purebred dogs. The American Kennel Club (AKC), an influential group of dog owners and breeders, says it will continue to promote responsible breeding.

Critics, however, want the AKC to also adopt tougher breeding standards. They want the AKC to make it difficult for the owner of a sick dog to breed the animal, which might then pass on diseases to its offspring.

Other experts want to crack down on unethical breeders who turn out ill puppies. So far, a dozen states have passed laws that force breeders to pay veterinary bills for the treatment of ill pups. The laws also require breeders to give refunds to people who buy puppies that later develop inherited diseases.

Animal lovers hope such efforts send a strong message: People should be more concerned about a dog's health than about its looks.



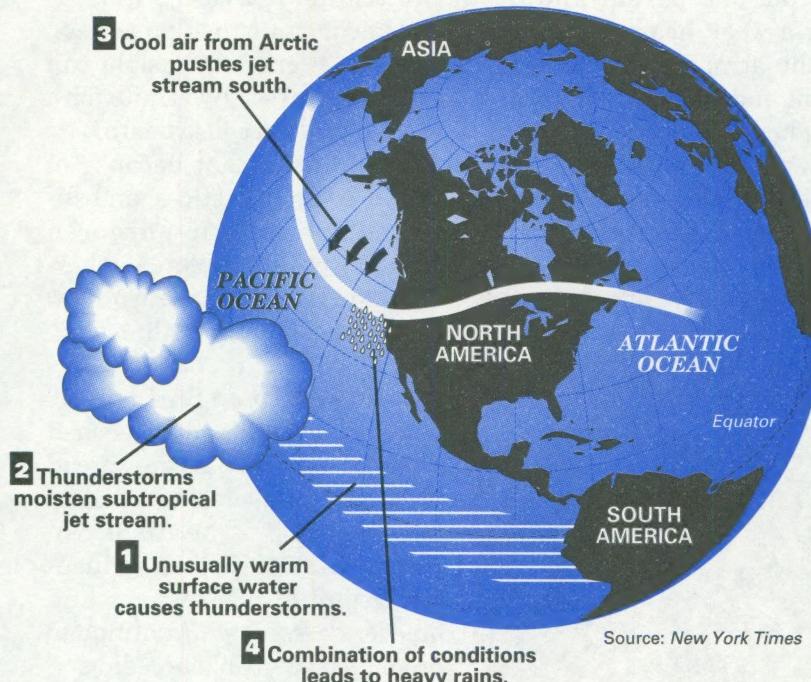
Many experts say people should adopt mixed-breed dogs as pets instead of buying purebred dogs. Do you agree or disagree? Explain your answer.

A Northville, Michigan, veterinarian gives an eye examination to a purebred Yorkshire terrier (right). Yorkies are prone to serious cataracts, or cloudiness of the eyes (shown below). Cataracts can seriously impair the animal's vision.

—Renee Stockdale/Animals Animals



# El Niño Floods California



The illustration shows how El Niño affects weather patterns across the United States. Meteorologists say El Niño forms about every two to seven years.

Severe flooding recently hit California, the site of frequent natural disasters. The state was hit with a 10-day storm that caused \$300 million in damages and left 11 people dead and 3,000 homeless.

After the torrential rains stopped, Patricia Tomasini of Ferndale looked around her storm-struck community and wondered, "What's going on here?"

What's going on is *El Niño*, a huge pool of unusually warm water near the equator. El Niño heats air over the Pacific Ocean and causes the air to pick up higher-than-normal amounts of moisture. This unusually moist air can drop large amounts of rain as it moves eastward.

Severe rain damage led California Governor Pete Wilson to declare 38 of California's 58 counties disaster areas. Residents are now trying to rebuild damaged homes, waterlogged highways, and flooded farms.

Despite severe flooding and other natural disasters recently, California residents have managed to stay calm. "I'm getting used to disasters," says Kimberly Clifford from Malibu. "What are you going to do? The good days outnumber the bad."

## Survey

### Should Schools Sell Ad Space?

A growing number of U.S. schools are allowing companies to buy space on school property to display their ads. The schools say they need the money to purchase books and supplies. Critics say kids are exposed to too many ads, and that schools should find other ways to raise money.

Should schools sell ad space? Let us know what you think.

1. Should schools sell ad space?

yes

no

it depends

2. Would ads in schools be more likely, less likely, or about

as likely to convince you to buy products than would ads outside of school?

- less likely
- more likely
- just as likely

3. If a school decides to sell ad space, what parts of the school and its property should ads *not* appear in or on? (Check all that apply.)

- auditoriums
- buses
- cafeteria
- classrooms
- gymnasiums

- hallways
- school grounds
- school uniforms
- textbook covers
- other \_\_\_\_\_

- No space should be available for ads.

Send your completed survey to School Ads, *Weekly Reader* Senior Edition, 245 Long Hill Road, P.O. Box 2791, Middletown, CT 06457-9291.

# Animals Everywhere

What are the animals shown on this page? Make your best guesses, then check with your teacher for the answers.

1

5



## SEARCH THEM OUT

How many of the animal names listed below can you find in the puzzle?

alligator	gray wolf
black rhino	horse
bluefin tuna	hyena
camel	kiwi
cobra	koala
condor	lemur
deer	lion
dog	llama
emu	lory
fox	manatee
frog	orangutan
giant panda	penguin
giraffe	seal
goat	sea turtle
gorilla	tiger

2

## Where's Georgeo Going?

Finally, here is Georgeo's tenth—and final—destination.

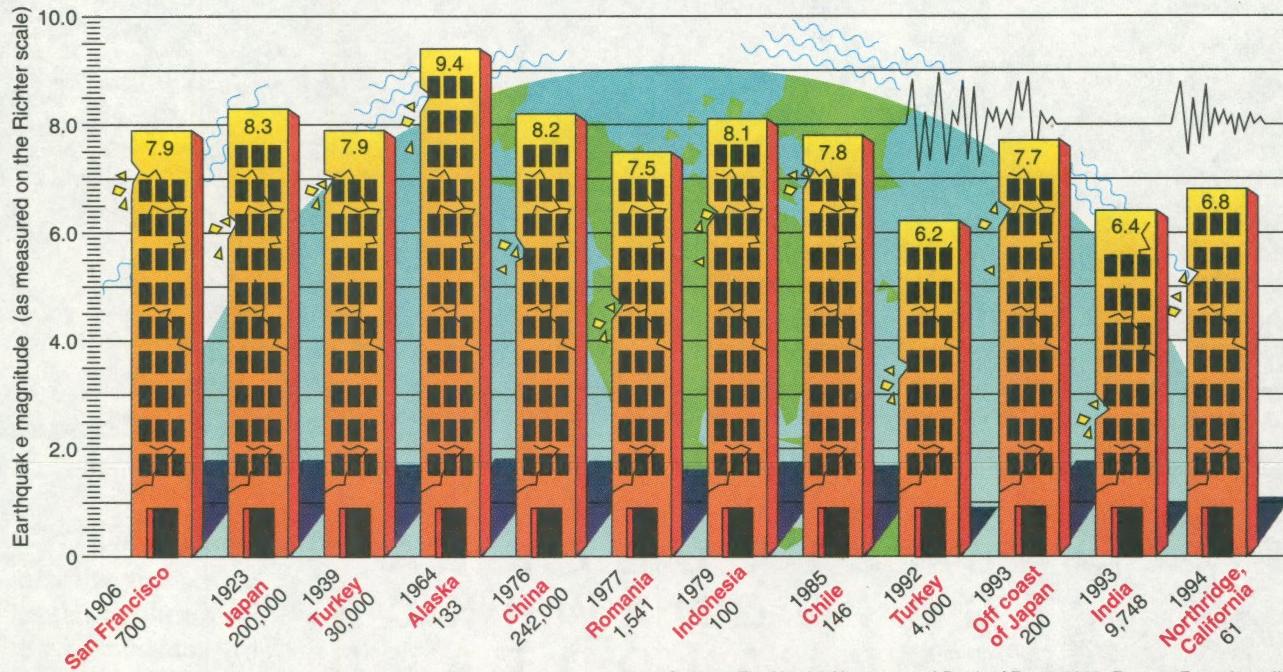
Georgeo will first hike to the top of the tallest mountain in the southernmost U.S. state. Then he'll visit the largest city in the largest county in that state. Name the mountain, the city, and the state.

3

4

# Earthquake!

Strength and location of selected quakes, year, and number of people killed



Source: *The World Almanac and Book of Facts, 1995; Encarta Encyclopedia*

## GEOPLUS™ ACTIVITY

*Circle the letter of the response that best completes each statement.*

- About ten times as many people died during the quake in India as died during the quake in (A) San Francisco, (B) Indonesia, (C) Romania.
- The quake that killed the greatest number of people occurred in (A) Japan, (B) China, (C) Romania.
- The quake in Northridge killed about half as many people as did the quake (A) in Alaska, (B) in San Francisco, (C) off the coast of Japan.
- The quake in China killed about as many people as the quakes in (A) Romania and Indonesia combined, (B) India and Romania combined, (C) Turkey in 1939 and Japan combined.
- The quake of greatest magnitude occurred in (A) 1906, (B) 1923, (C) 1964.
- The quake in Turkey in 1992 killed about 2,500 more people than the quake in (A) Romania, (B) India, (C) Turkey in 1939.
- Compared with quakes of the 70s, quakes of the 90s have been (A) more intense, (B) less intense, (C) about as intense.



Some powerful quakes kill few people, and others less powerful kill many people. What factors might account for the number of people killed during a quake?

## KNOW THE NEWS

*Circle the letter of the response that best completes each statement.*

- Large quakes are often preceded by these.  
(A) tidal waves  
(B) smaller quakes  
(C) volcanic eruptions
- The Richter scale measures this.  
(A) the amount of energy released by a quake  
(B) the area affected by a quake  
(C) the length of time a quake lasts
- Quakes result when these slide against each other.  
(A) mountain ridges  
(B) sections of Earth's crust  
(C) an ocean floor and a landmass
- This ratio of purebred dogs in the United States inherits a serious health problem.  
(A) one in ten  
(B) one in four  
(C) nearly four in four
- Some breeders mate dogs from the same family to do this.  
(A) reduce the cost of mating dogs with prized traits  
(B) improve the health of pups born with prized traits  
(C) increase the odds that pups will be born with prized traits



Salmon is a traditional food of a *potlatch*, a ceremony performed by Native Americans living in which region of North America?